

PipoW_P_1_03
Examiner Alan B. Cariaso

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Art Unit 2875

REMARKS/ARGUMENTS

Claim Objections:

Appropriated correction was made:

Claims 12 - 20 have been amended to delete the incorrect recitation of "Claim 1" to the right of the original claim number and to recite the correct claim numbers, and Claim 19 has been further amended to correct the antecedent.

Terminal Disclaimer:

A terminal disclaimer to obviate a provisional double patenting rejection over a pending reference application was made.

Remarks and Arguments:

In view of the following remarks, reconsideration of the outstanding Office Action is respectfully requested.

1. The rejection of amended **Claim 19** under 35 U.S.C. 102(b) as being anticipated by Harrison (U.S. 4,754,372) is respectfully traversed based on the following arguments.

Claim 19 recites: A method for illuminating ~~an~~ a fabricated solid object assembly, comprising the steps of:

- a. providing for at least one fabricated solid object to be illuminated;
- b. providing for at least one aperture in said at least one object to be illuminated;
- c. providing for at least one light emitting diode light source;
- d. providing for at least one optical fiber functionally embedded within said object, said fiber having a first end and a second end, said first end of said fiber arranged to terminate at an at least one visually exposed surface of said object, and
- e. reversibly inserting said at least one light source within said at least one aperture, said light source providing illumination to said second end of said fiber enabling light emitted from said light source to be guided from said light source through said fiber, wherein light is emitted from said visually exposed surface of said object assembly.

Harrison clearly does not teach a fabricated solid object as claimed by amended Claim 19 and as defined by Applicant multiple times in the specification as filed. Some examples of Applicant's defining use of the terms "fabricated solid object" are reprinted below directly from the Specification.

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[0003] Examples of materials that can be fabricated into solid objects include cement, concrete, plaster, fiberglass, glass, and plastics, to name just a few. These materials may be fabricated into a solid by the setting (i.e., the solidification or hardening) of a liquid or a suspension, by pressing a powdered material into a mold, or any similar known techniques. Fabricated solids can be shaped into a vast variety of objects from an artistically sculpted lawn or garden decoration to paving stones for a patio, walkway, or driveway.

[0013] The present invention achieves the above and more by setting forth novel self-illuminating fabricated solid objects, such as paving stones or statuary, wherein the objects have any known, or yet to be known, optical fibers embedded within, where one end of the optical fibers are exposed at a visually exposed surface of an object, and while second ends of the optical fibers are contained within a first end of an open receptacle also embedded within the object except for a second end of the receptacle that is exposed at a surface of the object. The exposed receptacle end is adapted to reversibly receive a reversibly powered light source to achieve contact of the fiber's second ends with the light source so that light emitted from the light source is thereby guided from the source through the fibers to the surface of the fabricated object providing for any colored self-illuminating patterns, seasonal designs, informational text, or advertising. A plurality of designs in various colors may exist on a single object. These durable objects have a long life as surface exposed fibers wear with the surface of the object and worn-out light sources are easily and rapidly replaced.

[0014] The self-illuminating objects are formed by casting, molding, or pressing, or any other method that results in the making of a fabricated, solid object. The objects can be made of any material having properties amenable to the final intended use of the self-illuminating object, such as concrete or cement if it is desired to manufacture self-illuminating paving or building blocks or stones. Cement or concrete, as well as clay, plastic, plaster, fiber glass, and glass may be employed to manufacture statuary, memorial stones, or name plaques, for example. The manufacturing material may be opaque, translucent, or transparent.

Definitions

"Molding techniques" as used herein is defined as any number of techniques used to achieve a desired form or shape by pouring a liquid or a suspension, or by pressing a powder or a malleable substance, into a form or mold, which form or mold is to be removed when the desired form or shape is achieved.

"Pressing techniques" are defined herein as forming an object of a desired shape or form by forcing a malleable material, such as clay or hot glass, by way of example, into a mold, which material is then allowed to dry or set to a solid.

"Setting" as used herein means the process that a molded, pressed, or poured material must go through to achieve its desired shape as a solid material, which can include drying, swelling, chemical transformations, or a combination thereof.

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Thus, it is easily understood that Harrison does not teach a "fabricated solid object", such as an object made of cement, concrete, glass, plastic, especially one where the optical fibers are embedded, i.e., encased or buried, completely within the solid object and where one end of the optical fiber terminates on a visually exposed surface of the fabricated solid object. On the contrary, Harrison teaches a fibrous carpet where optical fibers are positioned so as to be standing up freely in the open between the fibers of the carpet. In fact, the optical fibers are to be, hopefully, supported by the fibers of the carpet, if the fibers are manufactured densely enough to do so (Col. 3, lines 60 – 69).

More over Harrison does not teach the use of an light emitting diode light source, nor does Harrison teach that the optical fibers are arranged to terminate at a visually exposed surface of said solid object, nor does Harrison teach that the optical fibers are contained within the structure of the solid object, which limitation is contained within the limitations of Claim 19.

Thus, it has been shown that Harrison does not teach, or even suggest, all of the limitations recited by Claim 19, and thus, Harrison may not be used to reject Applicant's Claim.

For the reasons provided above Applicant respectfully submits that amended Claim 19 is patentable over the cited reference

2. The rejection of **Claim 20** under 35 U.S.C. 103(a) as being unpatentable over Harrison (U.S. 4,754,372) in view of Shih (U.S. 6,234,656) is respectfully traversed in that Examiner has failed to make a *prima facie case* of obviousness as shown below.

Claim 20 recites:

A self-illuminating fabricated solid object assembly comprising:

- a) a fabricated solid object having at least one visually exposed surface and having at least one aperture open to an outer surface;
 - b) at least one optical fiber, said fiber embedded within said fabricated solid object providing for one end of said fiber to terminate on said at least one visually exposed surface of said fabricated solid object;
 - c) at least one receiving means embedded within said solid object and operatively coupled with said aperture, said receiving means adapted for encompassing another end of said at least one optical fiber;
 - d) at least one light emitting diode light source means,
- wherein said receiving means adapted to reversibly receive said light source means providing for operative contact of said light source means with the end

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of said fiber encompassed by said receiving means enabling light emitted from said light source means to be guided from said light source means to the end of said at least one optical fiber visibly terminating on said visually exposed surface of said fabricated object. [Emphasis added].

Neither Harrison nor Shih teach a fabricated solid object as recited by Claim 20 and as adequately defined by Applicant. Examples of Applicant's defining use of the terms "fabricated solid object" are reprinted below directly from the Specification, as filed.

[0003] Examples of materials that can be fabricated into solid objects include cement, concrete, plaster, fiberglass, glass, and plastics, to name just a few. These materials may be fabricated into a solid by the setting (i.e., the solidification or hardening) of a liquid or a suspension, by pressing a powdered material into a mold, or any similar known techniques. Fabricated solids can be shaped into a vast variety of objects from an artistically sculpted lawn or garden decoration to paving stones for a patio, walkway, or driveway.

[0013] The present invention achieves the above and more by setting forth novel self-illuminating fabricated solid objects, such as paving stones or statuary, wherein the objects have any known, or yet to be known, optical fibers embedded within, where one end of the optical fibers are exposed at a visually exposed surface of an object, and while second ends of the optical fibers are contained within a first end of an open receptacle also embedded within the object except for a second end of the receptacle that is exposed at a surface of the object. The exposed receptacle end is adapted to reversibly receive a reversibly powered light source to achieve contact of the fiber's second ends with the light source so that light emitted from the light source is thereby guided from the source through the fibers to the surface of the fabricated object providing for any colored self-illuminating patterns, seasonal designs, informational text, or advertising. A plurality of designs in various colors may exist on a single object. These durable objects have a long life as surface exposed fibers wear with the surface of the object and worn-out light sources are easily and rapidly replaced.

[0014] The self-illuminating objects are formed by casting, molding, or pressing, or any other method that results in the making of a fabricated, solid object. The objects can be made of any material having properties amenable to the final intended use of the self-illuminating object, such as concrete or cement if it is desired to manufacture self-illuminating paving or building blocks or stones. Cement or concrete, as well as clay, plastic, plaster, fiber glass, and glass may be employed to manufacture statuary, memorial stones, or name plaques, for example. The manufacturing material may be opaque, translucent, or transparent.

Definitions

"Molding techniques" as used herein is defined as any number of techniques used to achieve a desired form or shape by pouring a liquid or a suspension.

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or by pressing a powder or a malleable substance, into a form or mold, which form or mold is to be removed when the desired form or shape is achieved.

"Pressing techniques" are defined herein as forming an object of a desired shape or form by forcing a malleable material, such as clay or hot glass, by way of example, into a mold, which material is then allowed to dry or set to a solid.

"Setting" as used herein means the process that a molded, pressed, or poured material must go through to achieve its desired shape as a solid material, which can include drying, swelling, chemical transformations, or a combination thereof.

As discussed above, Harrison does not teach a "fabricated solid object", such as an object made of cement, concrete, glass, plastic, and the like where the optical fibers are embedded completely within the solid object and where one end of the fiber terminates on a visually exposed surface of the fabricated solid object. Conversely, Harrison teaches a fibrous carpet where optical fibers are interdigitated among the carpet's fibers to stand upright in the open space between the fibers of the carpet. In fact, the optical fibers are, hopefully, supported by the fibers of the carpet, if the fibers are manufactured densely enough to do so (Col. 3, lines 60 – 69).

Shih does not teach a "fabricated solid object", such as an object made of cement, concrete, glass, plastic, and the like, where the optical fibers are embedded completely within the solid object. It is quite clear that Shih teaches an invention where the optical fibers extend for a considerable distance, that is, where the distance is more than an order of magnitude the depth of the object with the surface, out and away from the surface.

For the reasons provided above Applicant respectfully submits that Claim 20 is patentable over the cited references.

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CONCLUSION

The Prior art made of record and not relied upon was considered.

In view of the terminal disclaimer, required amendments, and arguments presented, Applicant believes that all of the claims of the Application are now in condition for allowance. Accordingly, favorable consideration of the present application is respectfully requested so that it may timely pass to issue.

Respectfully submitted,
For Walter E. Pipo, Applicant

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